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# 1962
# Annual Report

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## The Babcock & Wilcox Company

Our 95th Year of Helping Industry Serve America

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| | |
|---|---|
| The Babcock & Wilcox Company | Incorporated in 1881 from a partnership formed in 1867 |
| Directors | A. G. PRATT, Chairman |
| | W. O. BAKER |
| | WALTHER H. FELDMANN |
| | J. ROY GORDON |
| | C. W. MIDDLETON |
| | M. NIELSEN |
| | STODDARD M. STEVENS |
| | W. J. THOMAS |
| | B. A. TOMPKINS |
| | JOHN C. TRAPHAGEN |
| | L. S. WILCOXSON |
| Officers | M. NIELSEN, President |
| | J. S. ANDERSON, Vice President |
| | R. A. BARR, Vice President |
| | CARL CLAUS, Vice President |
| | J. P. CRAVEN, Vice President |
| | J. D. HITCH JR., Vice President |
| | G. W. KESSLER, Vice President |
| | S. T. MACKENZIE, Vice President |
| | ALAN E. PHIN, Vice President |
| | W. H. ROWAND, Vice President |
| | A. P. TABER, Vice President |
| | W. J. THOMAS, Vice President |
| | L. S. WILCOXSON, Vice President |
| | R. J. CANTWELL, Comptroller |
| | W. P. CATTERSON, Treasurer |
| | MARTIN VICTOR, Secretary |
| | O. R. CARPENTER, Assistant Vice President |
| General Offices | 161 East 42nd Street, New York 17, N.Y. |
| Stock Transfer Agent | BANKERS TRUST COMPANY, 16 Wall Street, New York 15, N.Y. |
| Registrar | THE BANK OF NEW YORK, 48 Wall Street, New York 15, N.Y. |
| General Counsel | SULLIVAN & CROMWELL |
| Auditors | PRICE WATERHOUSE & CO. |

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Eighty-Second

# The Babcock & Wilcox Company Annual Report 1962

for the year ended December 31, 1962

**Notice to Stockholders** The Annual Meeting of Stockholders will be held at 10 A.M., Wednesday, April 24, 1963, in the Biltmore Hotel, New York City. A formal notice of the meeting with a proxy statement and form of proxy will be mailed to each stockholder March 18, when management will request proxies.

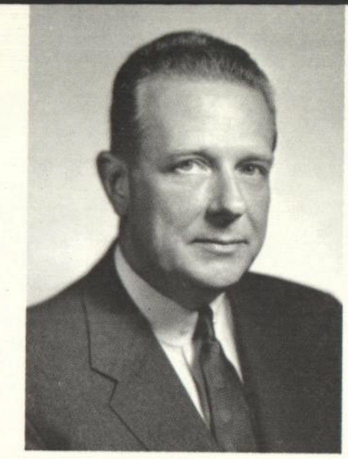
# 1962 HIGHLIGHTS

**The Babcock & Wilcox Company**

| | 1962 | 1961 |
|---|---|---|
| Per Share Issued[1] | | |
| Net income for the year | $ 3.37 | $ 3.27 |
| Cash dividends declared | 1.60 | 1.45 |
| Stockholders' equity | 33.03 | 31.23 |
| In Thousands of Dollars | | |
| Orders received | $ 348,907 | $361,285 |
| Unfilled orders | 351,360 | 333,027 |
| Sales (on percentage of completion method for long-term contracts) | 330,574 | 319,353 |
| Income before income taxes and minority interest | 44,110 | 43,122 |
| U. S. and foreign taxes on income | 23,000 | 22,580 |
| Net income for the year | 20,860 | 20,241 |
| Cash dividends declared | 9,759 | 8,849 |
| Expenditures for property, plant and equipment | 25,662 | 6,188 |
| Depreciation and amortization | 10,335 | 8,673 |
| Payrolls and employee benefits | 144,894 | 127,123 |
| Average number of employees during year | 20,000 | 18,600 |
| Number of stockholders at year end | 16,297 | 16,597 |
| Number of shares issued at year end | 6,183,313 | 6,183,313 |

[1] Based on shares issued, including shares held in the Treasury for the Stock Option Plan.

# THE PRESIDENT'S LETTER



**To the Stockholders of The Babcock & Wilcox Company:**

The Company's growth and progress continued in 1962.

Earnings of $20,860,000, or $3.37 per share, represent a slight increase over earnings for 1961 and were achieved despite the fact that prices and markets for many of our products were in a depressed condition. In 1962, we also had to absorb substantial cost increases caused by higher wage and labor rates and fringe benefits.

This performance for 1962 is in part a result of the continuing company-wide profit improvement program which is steadily raising the level of operating efficiency throughout the organization. In addition, our long-range capital investment program is contributing substantially to reduced costs and better earnings. Expenditures for this purpose in 1962 totaled $25,662,000 and were the largest in any single year of the Company's history. Twenty million dollars are now scheduled for expenditure in 1963. This capital program covers all operating divisions and subsidiaries and includes continued modernization, integration and expansion of our equipment and facilities.

Since orders received in 1962 exceeded shipments, the backlog of $351,360,000 at the end of the year was 5.5 per cent higher than the backlog at the end of 1961.

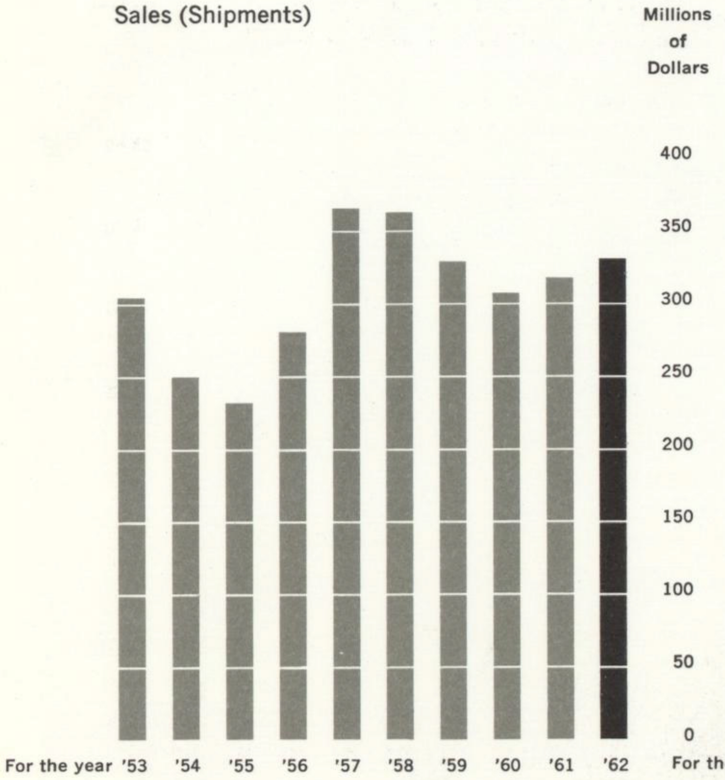
To compete in today's fast-moving technological world, our Company must look many years ahead when charting future progress. This year our annual report highlights research and development, capital investment, and market expansion—three elements in our planning which we believe are essential to the Company's continued growth.

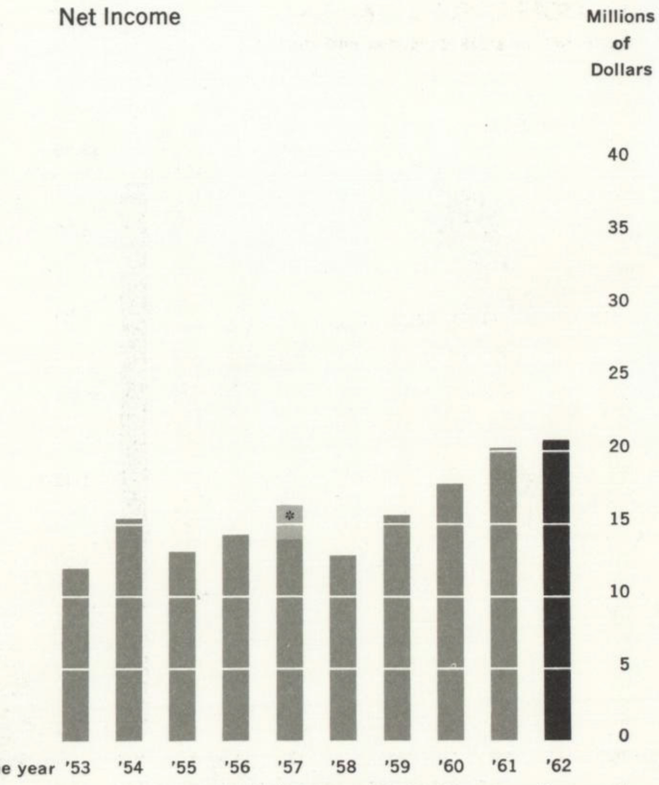
M. Nielsen, President

New York, N.Y., February 28, 1963

# 1962 INCOME AND WHERE IT WENT

| | | |
|---|---|---|
| **Our income was** | | |
| From products shipped to customers | $330,574,000 | |
| From investment income | 2,068,000 | |
| **Total** | **$332,642,000** | |
| **We paid out and provided** | | |
| For materials and services purchased | $129,380,000 | 38.9% |
| For wages, salaries and employee benefits | 144,894,000 | 43.6 |
| For taxes | 25,971,000 | 7.8 |
| For depreciation of plant and equipment | 10,335,000 | 3.1 |
| For interest on money borrowed | 952,000 | 0.3 |
| For minority interest in subsidiary company | 250,000 | 0.1 |
| For cash dividends to stockholders | 9,759,000 | 2.9 |
| For future growth (retained earnings) | 11,101,000 | 3.3 |
| **Total** | **$332,642,000** | **100.0%** |


Sales (Shipments)


Net Income

*Includes $2,250,000 extraordinary gain

# FINANCIAL REVIEW

The figures in this report result from a consolidation of the accounts of the Company and its subsidiaries, Bailey Meter Company, Diamond Power Specialty Corporation, and A. M. Lockett & Co., Limited.

**Sales (Shipments) and Income**

| | 1962 | 1961 |
|---|---|---|
| Sales (shipments) . | $330,574,000 | $319,353,000 |
| Income from operations . . | $ 42,994,000 | $ 41,959,000 |
| Net income . : . | $ 20,860,000 | $ 20,241,000 |
| Shares issued . . | 6,183,313 | 6,183,313 |
| Earned per share . | $ 3.37 | $ 3.27 |

Earnings for 1962 continue to reflect efficiencies brought about by large capital investments in recent years for new and improved equipment and facilities and by the continuing company-wide profit improvement program.

An increase in depreciation provision arising from application for book and tax purposes of the Treasury Department's new guidelines and rules resulted in a decrease of $.07 per share in net income for the year.

A tax incentive credit of $832,000, as determined under the Revenue Act of 1962, resulted from the acquisition of new equipment during the year. For financial statement purposes, the credit will be reflected as proportionate reduction of tax expense over the productive lives of the equipment and not in the year acquired.

**Dividends**

Four quarterly dividends of $.40 per share each, totaling $1.60 per share for the year, were declared during 1962.

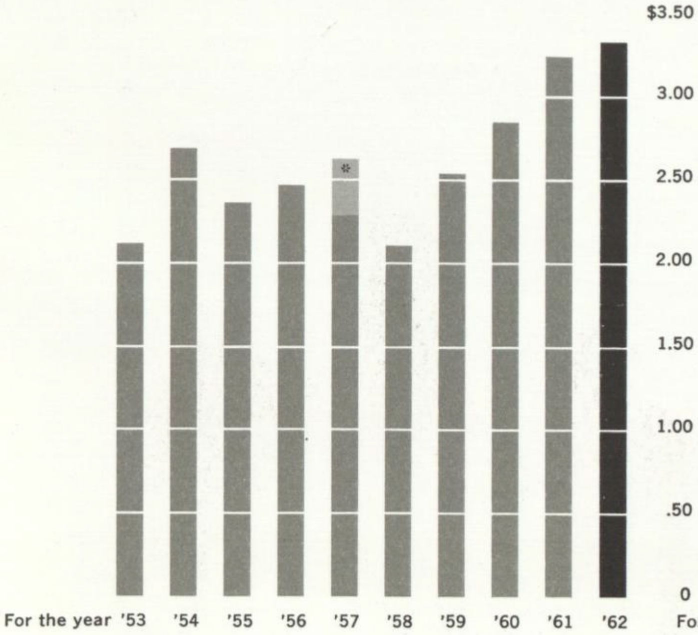
Dividends were **paid** during 1962 as follows:

| Amount Paid | Date Paid | Date of Record |
|---|---|---|
| $ .40 | Jan. 2, 1962 | Dec. 11, 1961 |
| .40 | April 2, 1962 | Mar. 12, 1962 |
| .40 | July 2, 1962 | June 11, 1962 |
| .40 | Oct. 1, 1962 | Sept. 10, 1962 |

$1.60 per share total paid

Earnings per Share

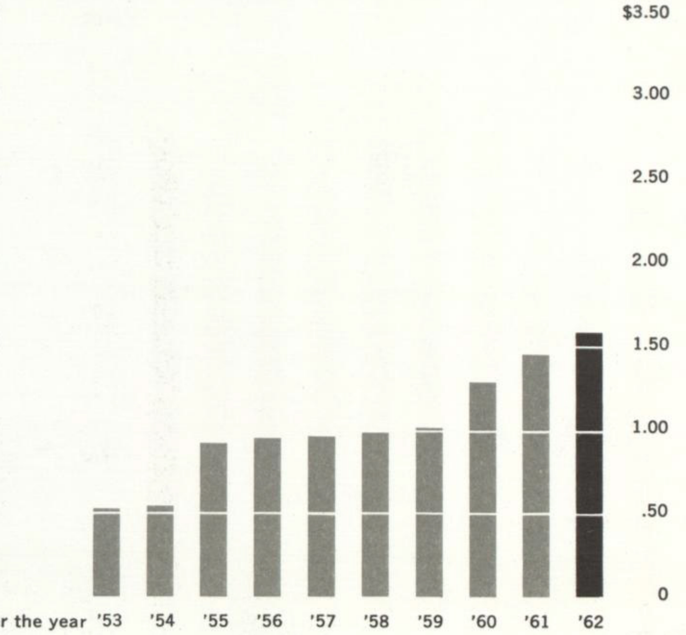
(adjusted for stock dividends and stock splits)



* Includes 36 cents per share extraordinary gain

Cash Dividends Declared per Share

(adjusted for stock dividends and stock splits)



## Financial Position

The Company's financial position remains very strong. Cash and marketable securities at the year end totaled $51,007,000. These funds, together with expected cash flow, should be sufficient to finance the business for the foreseeable future.

On June 1, 1962, the Company paid the second installment of $2,200,000 on its long-term debt. As in 1961, it also exercised its option to pay an additional $2,200,000 without penalty. As a result, the total debt has been reduced from its original figure of $32,000,000 to $23,200,000.

## Orders and Backlog

New orders received during 1962 totaled $348,907,000, down from the $361,285,000 booked in 1961. Because new orders exceeded sales (shipments), unfilled orders increased from $333,027,000 at the end of 1961 to $351,360,000 at the end of 1962. A large part of the backlog is for steam generating equipment with shipments extending into 1964 or later.

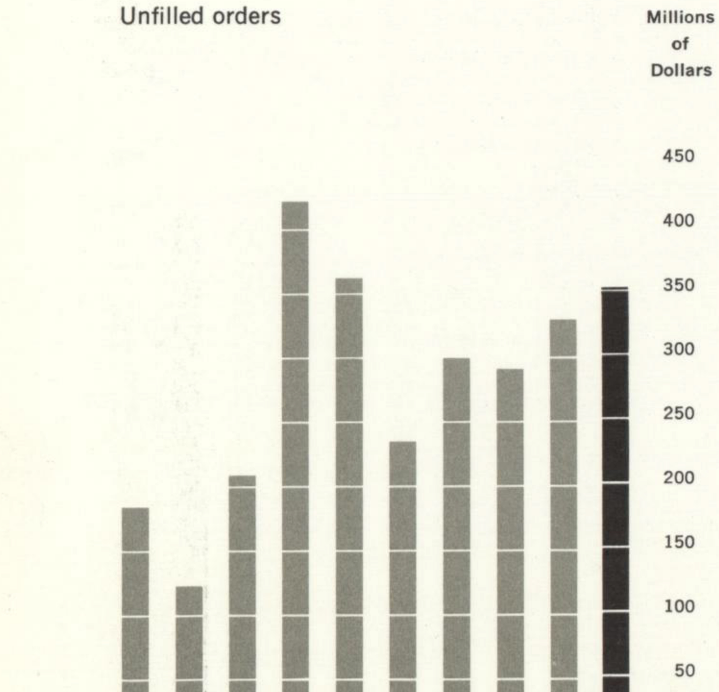
## Property, Plant and Equipment

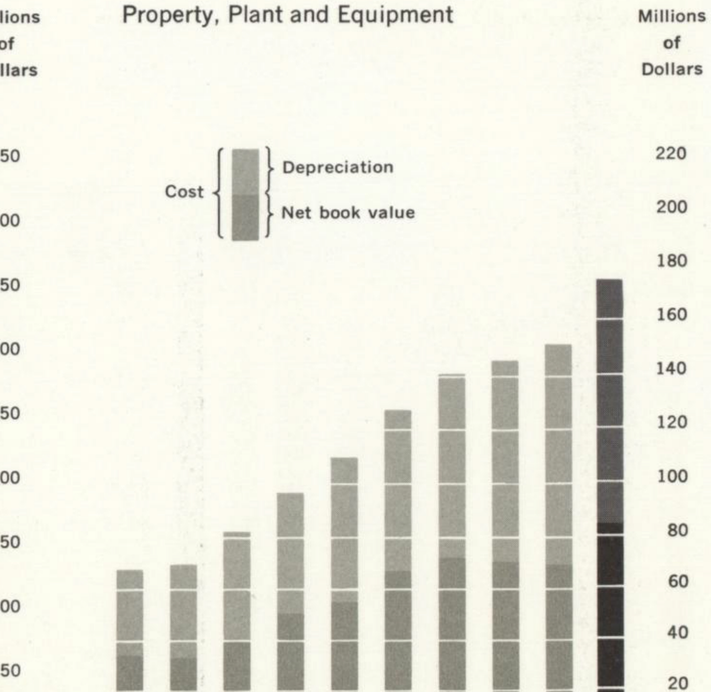
Expenditure of $25,662,000 in 1962 for property, plant and equipment represented the largest such capital investment in any single year of the Company's history. At the year end, $19,904,000 authorized by the Board remained to be expended.

These expenditures are part of the Company's long range program of installing highly efficient machine tools and equipment, integrating its product lines, developing new products, and expanding its production facilities.

## Employees

The number of active employees during 1962 averaged 20,000. At the end of December there were 1,080 retired employees receiving pensions, an increase during the year of 119. The cost of payrolls





and employee benefits, including Company contributions to pension funds, totaled $144,894,000.

Under formalized pension plans approved by the stockholders in 1955, actuarially determined payments totaling $4,860,000 were made to the pension and retirement funds in 1962.

The changes in the funds are summarized below:

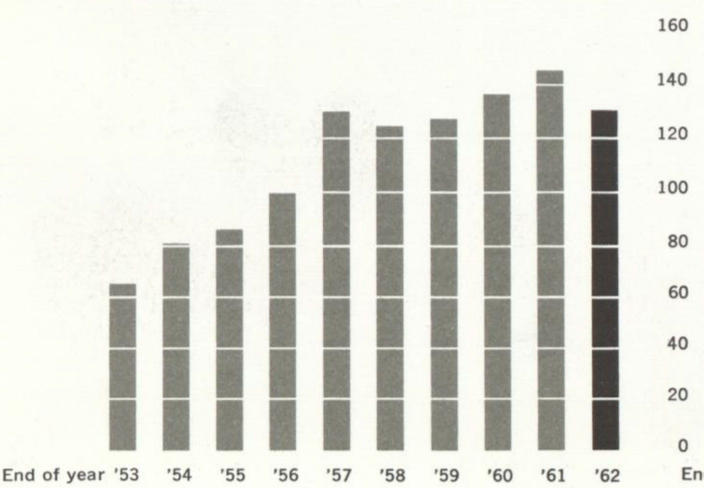
| | |
|---|---|
| Total assets on Jan. 1, 1962 . . . | $23,404,000 |
| Contributions by Company during 1962 . . . . . . . | 4,860,000 |
| Income from pension fund investments during 1962 . . . | 994,000 |
| Less pensions paid during 1962 . | 1,470,000 |
| Total assets on Dec. 31, 1962 . . | $27,788,000 |

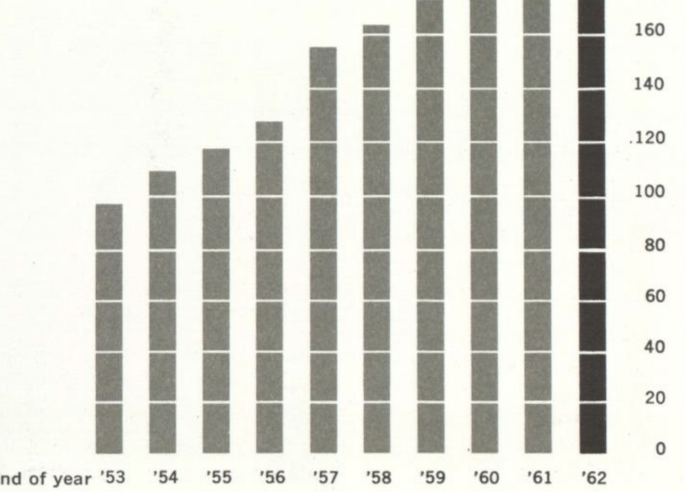
The following is the status of the Company's Stock Option Plan approved by the stockholders in 1958 which authorized granting options at 95 per cent of the market price at the time of granting:

| | |
|---|---|
| Options were outstanding on Jan. 1, 1962 for . . . . | 76,256 shares |
| Options were granted during 1962 for . . . . . . | 32,800 shares |
| Options lapsed during 1962 for . . | 1,375 shares |
| Options were exercised during 1962 for . . . . . | 10,217 shares |
| Options were outstanding on Dec. 31, 1962 for . . . . | 97,464 shares |

On December 31, 1961, and December 31, 1962, there were 62,119 and 30,694 shares, respectively, available for the granting of options. No options may be granted under this Plan after April 1, 1963.

The Plan requires that only previously issued shares be used to meet the stock options granted. The Company has therefore acquired, on the open market, sufficient shares for that purpose. The cost of shares acquired for options outstanding on December 31, 1962, was $3,561,192. This amount is included in Prepaid Expenses and Other Assets in the Statement of Financial Condition. If all outstanding options are exercised, $3,434,503 will be returned to the Company.





# CONSOLIDATED STATEMENT OF FINANCIAL CONDITION

| **At December 31** | **1962** | **1961** |
|---|---|---|
| CURRENT ASSETS | | |
| Cash | $ 9,169,499 | $ 10,771,086 |
| Marketable securities, at cost (approximate market) | 41,837,004 | 55,889,154 |
| Accounts receivable | 49,725,727 | 54,218,097 |
| Unbilled shipments and installations, at contract prices | 17,849,724 | 17,452,803 |
| Inventories, at lower of cost or market | 87,632,057 | 72,150,592 |
| Advance payments on contracts | (20,142,167) | (13,752,233) |
| TOTAL CURRENT ASSETS | 186,071,844 | 196,729,499 |
| CURRENT LIABILITIES | | |
| Portion of long-term debt due within one year | | 2,200,000 |
| Accounts payable | 14,470,182 | 9,816,887 |
| Accrued liabilities | 20,284,811 | 17,562,902 |
| Cash dividends payable | 2,433,816 | 2,442,823 |
| Provision for additional costs on contracts | 2,794,944 | 2,000,000 |
| U. S. and foreign income taxes | 16,215,472 | 16,183,191 |
| TOTAL CURRENT LIABILITIES | 56,199,225 | 50,205,803 |
| WORKING CAPITAL | 129,872,619 | 146,523,696 |
| LONG-TERM RECEIVABLES (minor in 1961) | 9,726,822 | |
| INVESTMENTS, at cost | 868,024 | 1,044,417 |
| PROPERTY, PLANT AND EQUIPMENT, at cost less accumulated depreciation and amortization: 1962—$92,822,344; 1961—$83,111,500 | 83,679,429 | 68,406,298 |
| PREPAID EXPENSES AND OTHER ASSETS (includes cost of shares of the Company's stock acquired for stock options: 1962—97,464 shares; 1961—76,256 shares. See page 7) | 4,759,127 | 3,929,735 |
| PATENTS | 1 | 1 |
| WORKING CAPITAL AND OTHER ASSETS | 228,906,022 | 219,904,147 |
| DEDUCT | | |
| Long-term debt—notes payable (3⅝% and 3⅞%) due in annual installments, June 1, 1964, and 1966-1974 | 23,200,000 | 25,400,000 |
| Minority interest in subsidiary company | 1,475,946 | 1,375,669 |
| NET ASSETS | $204,230,076 | $193,128,478 |
| REPRESENTED BY | | |
| Capital stock, par value $9 per share; authorized 9,000,000 shares; issued 6,183,313 shares (including $26,681,610 excess over par value — capital surplus) | $ 82,331,427 | $ 82,331,427 |
| Retained earnings | 121,898,649 | 110,797,051 |
| | $204.230,076 | $193,128,478 |

# CONSOLIDATED STATEMENT OF INCOME AND RETAINED EARNINGS

| For the Calendar Year | 1962 | 1961 |
|---|---|---|
| Sales (on percentage of completion method for long-term contracts) | $330,573,637 | $319,352,917 |
| Costs and expenses: | | |
| Materials, payrolls, services and taxes other than U. S. and foreign taxes on income | 277,244,502 | 268,720,966 |
| Depreciation of plants and equipment (includes amortization: 1962—$792,221; 1961—$1,246,261) | 10,335,200 | 8,672,924 |
| | 287,579,702 | 277,393,890 |
| Income from operations | 42,993,935 | 41,959,027 |
| Income from investments and marketable securities | 2,068,153 | 2,282,931 |
| Interest expense | (952,450) | (1,119,850) |
| | 44,109,638 | 43,122,108 |
| U. S. and foreign taxes on income | 23,000,000 | 22,580.000 |
| | 21,109,638 | 20,542,108 |
| Income applicable to minority interest | (249,202) | (301,586) |
| Net income for the year | 20,860,436 | 20,240,522 |
| Cash dividends declared | 9,758,838 | 8,849,285 |
| Remainder added to retained earnings | 11,101,598 | 11,391,237 |
| Retained earnings at beginning of year | 110,797,051 | 99,405,814 |
| Retained earnings at end of year | $121,898,649 | $110,797,051 |

# OPINION OF INDEPENDENT ACCOUNTANTS

To the Stockholders and Directors of The Babcock & Wilcox Company:

In our opinion, the accompanying statements present fairly the consolidated financial position of The Babcock & Wilcox Company and its subsidiaries at December 31, 1962, and the results of their operations for the year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. Our examination of these statements was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

PRICE WATERHOUSE & CO.

New York, N.Y., February 27, 1963

Ten–Year Comparison of

## FINANCIAL CONDITION

(in thousands of dollars)

| At December 31 | 1962 |
|---|---|
| CURRENT ASSETS | |
| Cash | $ 9,169 |
| Marketable securities | 41,837 |
| Accounts receivable | 49,726 |
| Unbilled shipments and installations | 17,850 |
| Inventories | 87,632 |
| Advance payments on contracts | (20,142) |
| TOTAL CURRENT ASSETS | 186,072 |
| CURRENT LIABILITIES | |
| Notes payable | |
| Accounts payable | 14,470 |
| Accrued liabilities | 20,285 |
| Cash dividends payable | 2,434 |
| Provision for additional costs on contracts | 2,795 |
| U. S. and foreign income taxes | 16,215 |
| TOTAL CURRENT LIABILITIES | 56,199 |
| WORKING CAPITAL | 129,873 |
| LONG-TERM RECEIVABLES | 9,727 |
| INVESTMENTS | 868 |
| PENSION RESERVE INVESTMENTS | |
| PROPERTY, PLANT AND EQUIPMENT | 83,679 |
| PREPAID EXPENSES AND OTHER ASSETS | 4,759 |
| WORKING CAPITAL AND OTHER ASSETS | 228,906 |
| DEDUCT | |
| Long-term debt | 23,200 |
| Reserve for pensions prior to funded plan | |
| Minority interest in subsidiary company | 1,476 |
| NET ASSETS | $204.230 |
| REPRESENTED BY | |
| Capital including capital surplus | $ 82,332 |
| Stock dividends paid January following year | |
| Retained earnings | 121,898 |
| | $204,230 |

Ten–Year Comparison of

## PROPERTY, PLANT AND EQUIPMENT

(in thousands of dollars)

| | 1962 |
|---|---|
| COST | |
| At beginning of year | $151,518 |
| Expenditures during year | 25,662 |
| Retired or sold during year | (678) |
| At end of year | 176,502 |
| DEPRECIATION AND AMORTIZATION | |
| At beginning of year | 83,112 |
| Charged to operations during year | 10,335 |
| Accumulated on property retired or sold during year | (624) |
| At end of year | 92,823 |
| NET BOOK VALUE | $ 83,679 |

| 1961 | 1960 | 1959 | 1958 | 1957 | 1956 | 1955 | 1954 | 1953 |
|---|---|---|---|---|---|---|---|---|
| $ 10,771 | $ 12,887 | $ 9,531 | $ 11,764 | $ 12,873 | $ 14,578 | $ 14,184 | $ 20,121 | $ 9,062 |
| 55,889 | 48,682 | 29,987 | 11,686 | 4,729 | 1,999 | 8,805 | 7,268 | 1,550 |
| 54,218 | 53,133 | 59,726 | 52,514 | 45,686 | 39,394 | 34,198 | 39,277 | 43,886 |
| 17,453 | 15,580 | 21,688 | 29,533 | 20,200 | 10,161 | 10,925 | 17,758 | 20,638 |
| 72,151 | 66,188 | 63,357 | 76,939 | 104,504 | 91,486 | 56,996 | 40,975 | 56,902 |
| (13,752) | (13,205) | (10,608) | (11,226) | (12,168) | (9,427) | (2,232) | (2,649) | (2,069) |
| 196,730 | 183,265 | 173,681 | 171,210 | 175,824 | 148,191 | 122,876 | 122,750 | 129,969 |
| 2,200 | 2,200 | | | | | | | 20,500 |
| 9,817 | 11,192 | 12,678 | 12,991 | 10,838 | 12,270 | 9,394 | 11,413 | 12,833 |
| 17,563 | 15,911 | 16,950 | 15,436 | 14,922 | 12,186 | 9,045 | 9,002 | 10,922 |
| 2,443 | 2,135 | 1,832 | 1,520 | 1,472 | 1,286 | 1,225 | 778 | 741 |
| 2,000 | 1,603 | 2,611 | 3,913 | 3,315 | 1,762 | 2,803 | 4,000 | 2,500 |
| 16,183 | 13,060 | 12,157 | 12,312 | 14,975 | 13,867 | 15,109 | 16,588 | 15,560 |
| 50,206 | 46,101 | 46,228 | 46,172 | 45,522 | 41,371 | 37,576 | 41,781 | 63,056 |
| 146,524 | 137,164 | 127,453 | 125,038 | 130,302 | 106,820 | 85,300 | 80,969 | 66,913 |
| 1,044 | 723 | 604 | 604 | 604 | 1,600 | 1,600 | 1,603 | 2,177 |
| | | | | | | | 2,250 | 2,250 |
| 68,406 | 70,925 | 73,390 | 67,867 | 56,741 | 49,830 | 40,657 | 34,289 | 35,816 |
| 3,930 | 4,097 | 3,472 | 1,890 | 734 | 1,058 | 748 | 566 | 397 |
| 219,904 | 212,909 | 204,919 | 195,399 | 188,381 | 159,308 | 128,305 | 119,677 | 107,553 |
| 25,400 | 29,800 | 32,000 | 32,000 | 32,000 | 32,000 | 10,000 | 10,000 | 10,000 |
| | | | | | | | 2,250 | 2,250 |
| 1,375 | 1,372 | 1,367 | 1,350 | 1,261 | 1,158 | 1,091 | 1,049 | 1,025 |
| $193,129 | $181,737 | $171,552 | $162,049 | $155,120 | $126,150 | $117,214 | $106,378 | $ 94,278 |
| $ 82,332 | $ 82,332 | $ 82,332 | $ 80,339 | $ 73,338 | $ 46,311 | $ 38,760 | $ 34,260 | $ 31,450 |
| | | | 1,993 | 7,000 | 8,760 | 7,470 | 4,500 | 2,810 |
| 110,797 | 99,405 | 89,220 | 79,717 | 74,782 | 71,079 | 70,984 | 67,618 | 60,018 |
| $193,129 | $181,737 | $171,552 | $162,049 | $155,120 | $126,150 | $117,214 | $106,378 | $ 94,278 |
| $146,140 | $140,587 | $127,800 | $110,291 | $ 97,311 | $ 82,215 | $ 70,117 | $ 67,177 | $ 60,183 |
| 6,188 | 6,105 | 13,183 | 18,162 | 13,708 | 15,921 | 12,640 | 3,792 | 7,493 |
| (810) | (552) | (396) | (653) | (728) | (825) | (542) | (852) | (499) |
| 151,518 | 146,140 | 140,587 | 127,800 | 110,291 | 97,311 | 82,215 | 70,117 | 67,177 |
| 75,215 | 67,197 | 59,933 | 53,550 | 47,481 | 41,558 | 35,828 | 31,361 | 27,435 |
| 8,673 | 8,543 | 7,650 | 7,013 | 6,779 | 6,699 | 6,249 | 5,234 | 4,410 |
| (776) | (525) | (386) | (630) | (710) | (776) | (519) | (767) | (484) |
| 83,112 | 75,215 | 67,197 | 59,933 | 53,550 | 47,481 | 41,558 | 35,828 | 31,361 |
| $ 68,406 | $ 70,925 | $ 73,390 | $ 67,867 | $ 56,741 | $ 49,830 | $ 40,657 | $ 34,289 | $ 35,816 |

**The Babcock & Wilcox Company**

Ten-Year Comparison of

## INCOME AND RETAINED EARNINGS

(in thousands of dollars)

| For the Calendar Year | 1962 |
|---|---|
| Sales (on percentage of completion method for long-term contracts) | $ 330,574 |
| Costs and expenses: | |
| Materials, payrolls, services and taxes other than U. S. and foreign taxes on income | 277,245 |
| Depreciation and amortization | 10,335 |
| | 287,580 |
| Income from operations | 42,994 |
| Income from investments and marketable securities | 2,068 |
| Interest expense | (952) |
| | 44,110 |
| U. S. and foreign taxes on income | 23,000 |
| | 21,110 |
| Income applicable to minority interest | (250) |
| Extraordinary gain less related taxes | |
| Net income for the year | 20,860 |
| Dividends declared: | |
| Cash | 9,759 |
| Stock—1% in 1958, 4% in 1957 and 1956, 5% in 1953-1955 | |
| | 9,759 |
| Remainder added to retained earnings | 11,101 |
| Retained earnings at beginning of year | 110,797 |
| Transfer to capital stock | |
| Transfer from pension reserve | |
| Retained earnings at end of year | $ 121,898 |

## STATISTICS

| | 1962 |
|---|---|
| Income from operations before taxes—% of sales | 13.0% |
| Net income for year—% net worth first of year | 10.8% |
| Orders received—thousands of dollars | $ 348,907 |
| Unfilled orders—thousands of dollars | $ 351,360 |
| Shares issued during year: Stock dividend | |
| Stock split | |
| Stock sold | |
| Shares issued end of year | 6,183,313 |
| **Per share issued (adjusted for stock dividends and stock splits—6,183,313 shares in 1957-1962 inclusive and 5,621,194 in previous years)** | |
| **Income for year** | $ 3.37 |
| **Cash dividends declared** | 1.60 |
| **Stockholders' equity** | 33.03 |

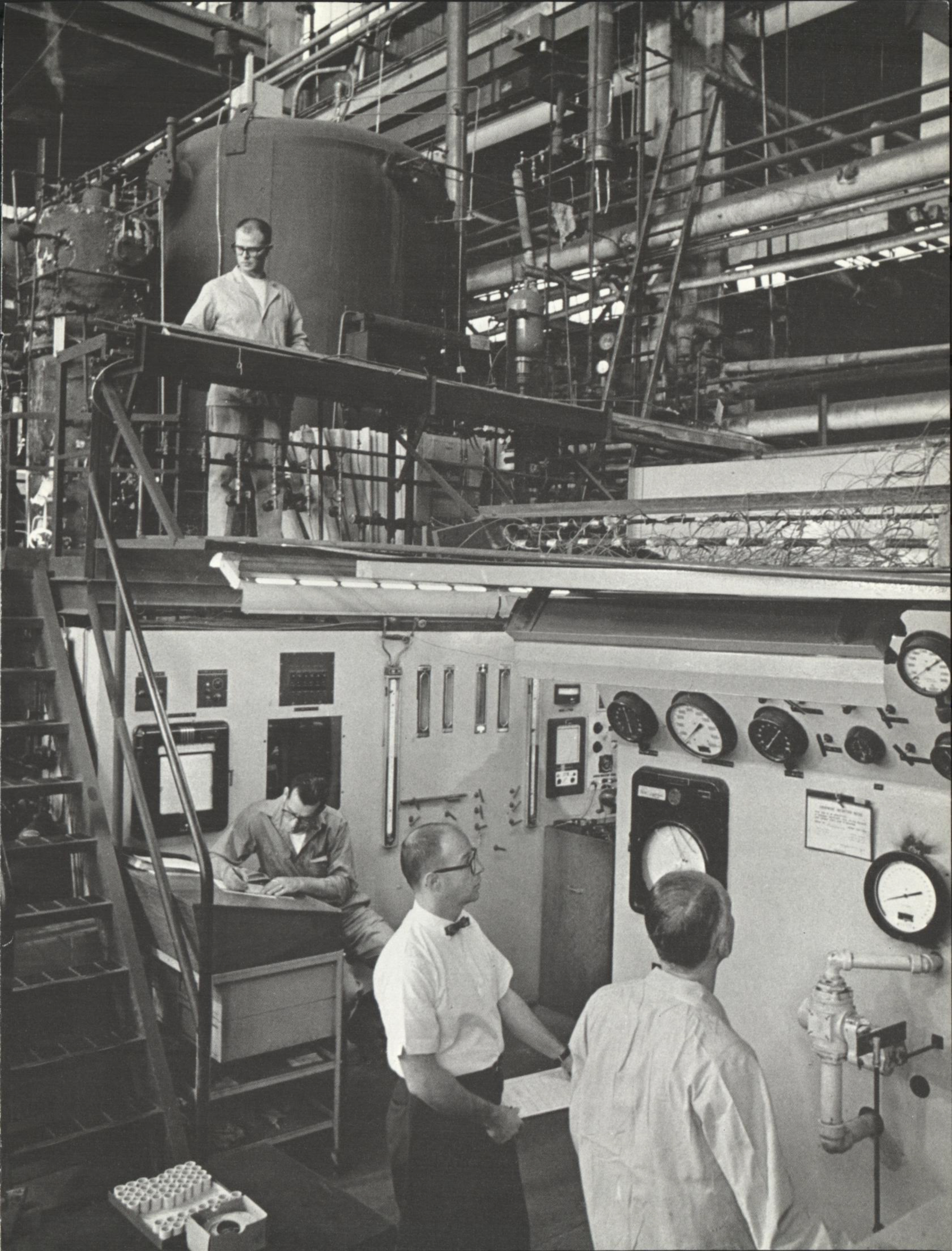
| 1961 | 1960 | 1959 | 1958 | 1957 | 1956 | 1955 | 1954 | 1953 |
|---|---|---|---|---|---|---|---|---|
| $ 319,353 | $ 310,999 | $ 332,071 | $ 365,941 | $ 366,081 | $ 281,485 | $ 233,291 | $ 250,471 | $ 305,746 |
| 268,721 | 266,749 | 291,058 | 329,221 | 326,375 | 244,890 | 197,006 | 214,539 | 273,701 |
| 8,673 | 8,543 | 7,650 | 7,013 | 6,779 | 6,699 | 6,249 | 5,234 | 4,410 |
| 277,394 | 275,292 | 298,708 | 336,234 | 333,154 | 251,589 | 203,255 | 219,773 | 278,111 |
| 41,959 | 35,707 | 33,363 | 29,707 | 32,927 | 29,896 | 30,036 | 30,698 | 27,635 |
| 2,283 | 2,011 | 1,509 | 462 | 386 | 562 | 515 | 737 | 206 |
| (1,120) | (1,218) | (1,218) | (1,218) | (1,238) | (854) | (354) | (580) | (891) |
| 43,122 | 36,500 | 33,654 | 28,951 | 32,075 | 29,604 | 30,197 | 30,855 | 26,950 |
| 22,580 | 18,380 | 17,430 | 15,640 | 17,630 | 15,320 | 16,520 | 15,470 | 14,190 |
| 20,542 | 18,120 | 16,224 | 13,311 | 14,445 | 14,284 | 13,677 | 15,385 | 12,760 |
| (301) | (303) | (286) | (276) | (239) | (203) | (190) | (173) | (699) |
|  |  |  |  | 2,250 |  |  |  |  |
| 20,241 | 17,817 | 15,938 | 13,035 | 16,456 | 14,081 | 13,487 | 15,212 | 12,061 |
| 8,849 | 7,632 | 6,435 | 6,107 | 5,753 | 5,146 | 4,901 | 3,112 | 2,963 |
|  |  |  | 1,993 | 7,000 | 8,760 | 7,470 | 4,500 | 2,810 |
| 8,849 | 7,632 | 6,435 | 8,100 | 12,753 | 13,906 | 12,371 | 7,612 | 5,773 |
| 11,392 | 10,185 | 9,503 | 4,935 | 3,703 | 175 | 1,116 | 7,600 | 6,288 |
| 99,405 | 89,220 | 79,717 | 74,782 | 71,079 | 70,984 | 67,618 | 60,018 | 53,730 |
|  |  |  |  |  | (80) |  |  |  |
|  |  |  |  |  |  | 2,250 |  |  |
| $ 110,797 | $ 99,405 | $ 89,220 | $ 79,717 | $ 74,782 | $ 71,079 | $ 70,984 | $ 67,618 | $ 60,018 |
| 13.1% | 11.5% | 10.0% | 8.1% | 9.0% | 10.6% | 12.9% | 12.2% | 9.0% |
| 11.1% | 10.4% | 9.8% | 8.4% | 13.0% | 12.0% | 12.7% | 16.1% | 14.2% |
| $ 361,285 | $ 301,146 | $ 395,540 | $ 236,201 | $ 306,072 | $ 495,257 | $ 317,283 | $ 192,199 | $ 157,255 |
| $ 333,027 | $ 291,095 | $ 300,948 | $ 237,479 | $ 367,219 | $ 427,228 | $ 213,456 | $ 129,464 | $ 187,736 |
|  |  | 61,220 | 235,465 | 205,826 | 81,677 | 77,787 | 74,083 | 70,555 |
|  |  |  |  |  | 3,430,436 |  |  |  |
|  |  |  |  | 535,148 |  |  |  |  |
| 6,183,313 | 6,183,313 | 6,183,313 | 6,122,093 | 5,886,628 | 5,145,654 | 1,633,541 | 1,555,754 | 1,481,671 |
| $ 3.27 | $ 2.88 | $ 2.58 | $ 2.11 | $ 2.66 | $ 2.50 | $ 2.40 | $ 2.71 | $ 2.15 |
| 1.45 | 1.25 | 1.05 | .99 | .93 | .92 | .87 | .55 | .53 |
| 31.23 | 29.39 | 27.74 | 26.21 | 25.09 | 22.44 | 20.85 | 18.92 | 16.77 |

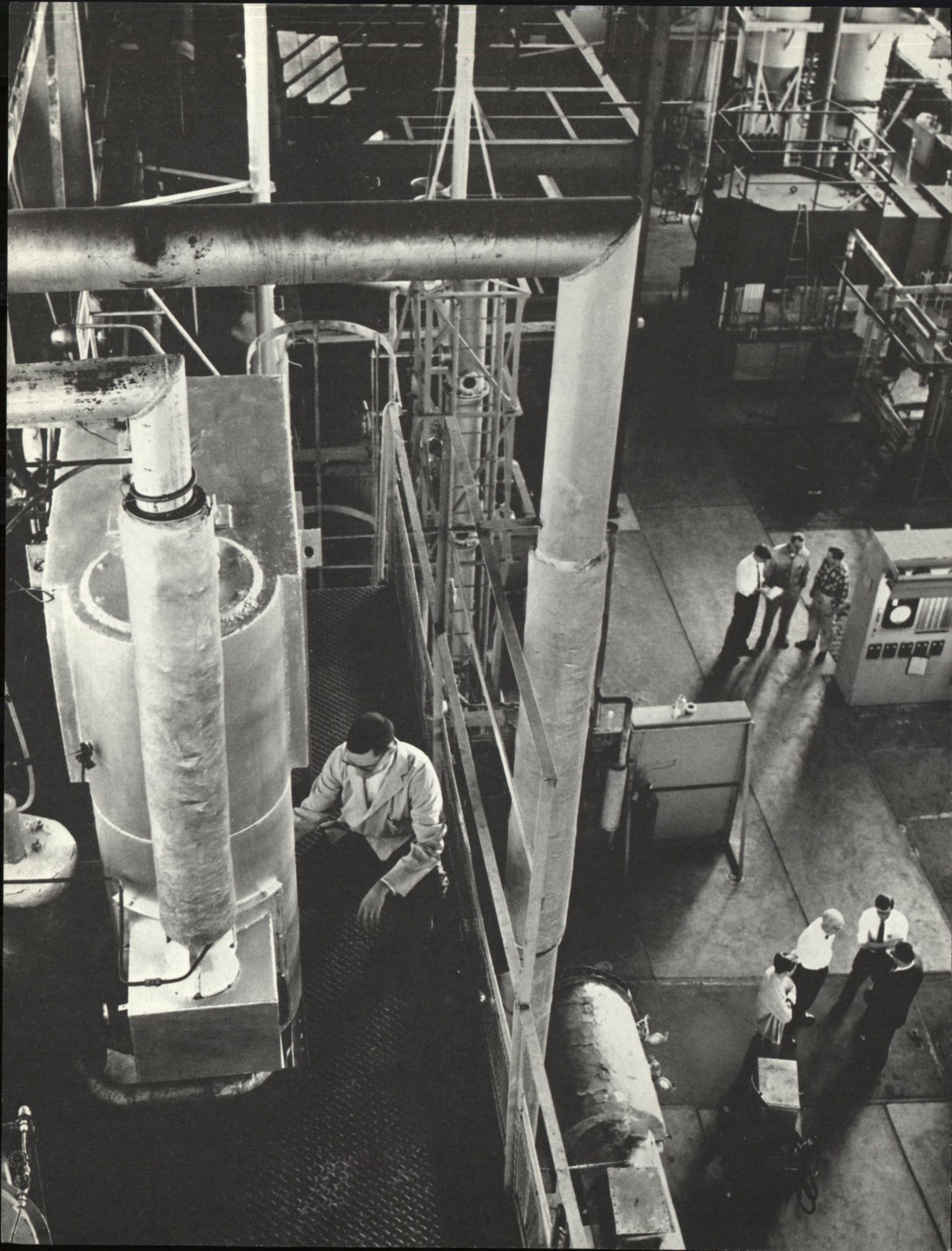
# B&W PROGRESS REPORT: 1. RESEARCH AND DEVELOPMENT

Beginning with Stephen Wilcox's experiments in fluid flow nearly a century ago, B&W's growth has stemmed from a broadening base of science and technology. From the Company's investment in research and development have come its significant contributions to industry. These include immense steam generators for highly efficient electric plants . . . refractories and ceramic fibers for steel, chemical, petroleum and other industrial furnaces . . . carbon, alloy and stainless steel tubing and ferrous and non-ferrous extrusions for many applications . . . boiler cleaning equipment . . . automation equipment for electric-generating plants and industrial processes . . . nuclear power systems for stationary plants and merchant and naval vessels . . . chemical recovery systems for the pulp and paper industry . . . and many other products. Already at a high level, expenditures for research and development are being accelerated as B&W scientists and engineers seek to devise new and improved products and more efficient manufacturing methods from the vast amount of new data being discovered in this scientific and technological age. Investigation of advanced ideas is carried on at the Research Center in Alliance, Ohio, and the Nuclear Development Center in Lynchburg, Va., in accordance with plans and objectives for long-term growth. This is coordinated with in-plant development work of the divisions and subsidiaries as new products and manufacturing methods move toward the application stage.

▲ B&W's Nuclear Development Center at Lynchburg, Va., which is to be completed in 1964, will have the first privately-financed center for designing, developing, testing, manufacturing and servicing reactor cores at one location. It will be among the most complete and modern in the world for atomic energy work. The $3.5-million building being erected will house a nuclear fuel laboratory and a new six megawatt, high neutron flux reactor. In operation since 1956 are a fuel element plant and a critical experiment laboratory with a swimming-pool reactor.

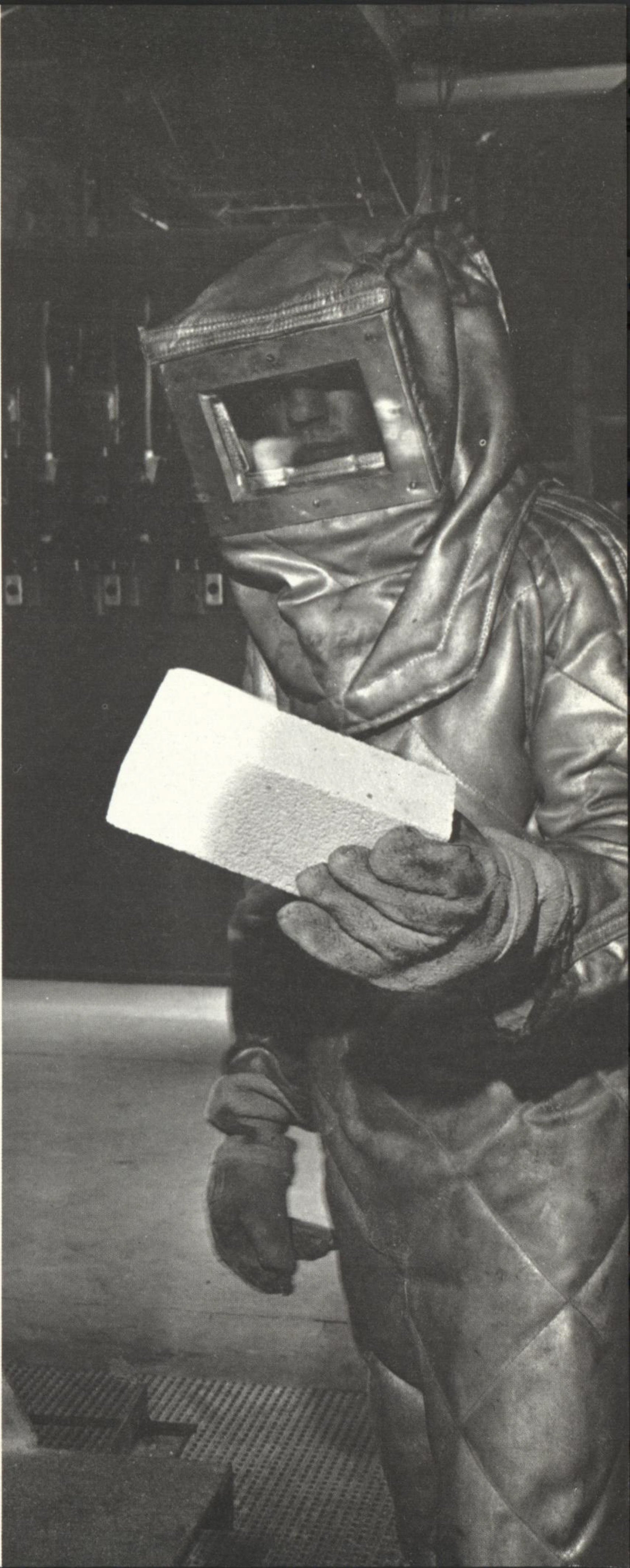
This project studying heat transfer in a Universal Pressure boiler furnace is typical of the great amount of research and large-scale equipment required in the development of B&W's modern boiler designs. Many years of work in metallurgy, fluid flow, heat transfer, water chemistry and control techniques were needed to make possible such advanced units as the UP boiler which is well-established as an efficient, economical method of generating high pressure, high temperature steam. ▶



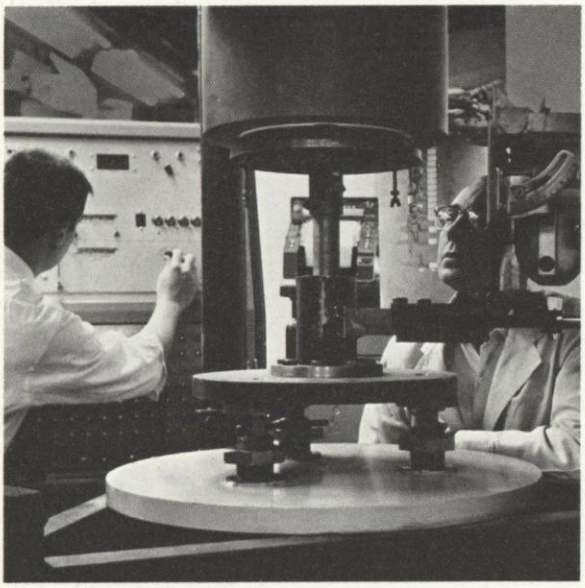


◀ Efficient operation of steam generating equipment requires clean heat transfer surfaces. Yet, chemical compositions in the many fuels available are so varied that boiler cleaning requirements have become more complex than ever. Through research with such equipment as this special ashing furnace, Diamond Power is able to predict and solve cleaning problems associated with combustion of fossil fuels. Analysis of fly-ash collected from burning as little as a 10-pound sample of a particular fuel in this furnace permits Diamond's engineers to predict strength of ash deposits which would be found in a boiler using the fuel. This ensures application of the correct type and amount of cleaning equipment.

Research and Development provides new products, ▶ reduces costs of existing products and processes, and obtains basic scientific and technical data. Here, a test is underway to determine the properties of heat-and-shock resistant refractories, which are required in the efficient operation of modern high-temperature furnaces in industries of all kinds.



▼ The high pressures and complex shapes of vessels used in fossil fuel and nuclear power plants pose difficult problems in stress analysis. To design safe, economical vessels, often as thick as eight inches, B&W studies behavior of many different steels under stress. Such experiments require expensive and intricate equipment and instrumentation. B&W's success over the years in acquiring knowledge of stress analysis has earned it the reputation as a leader in this special field.



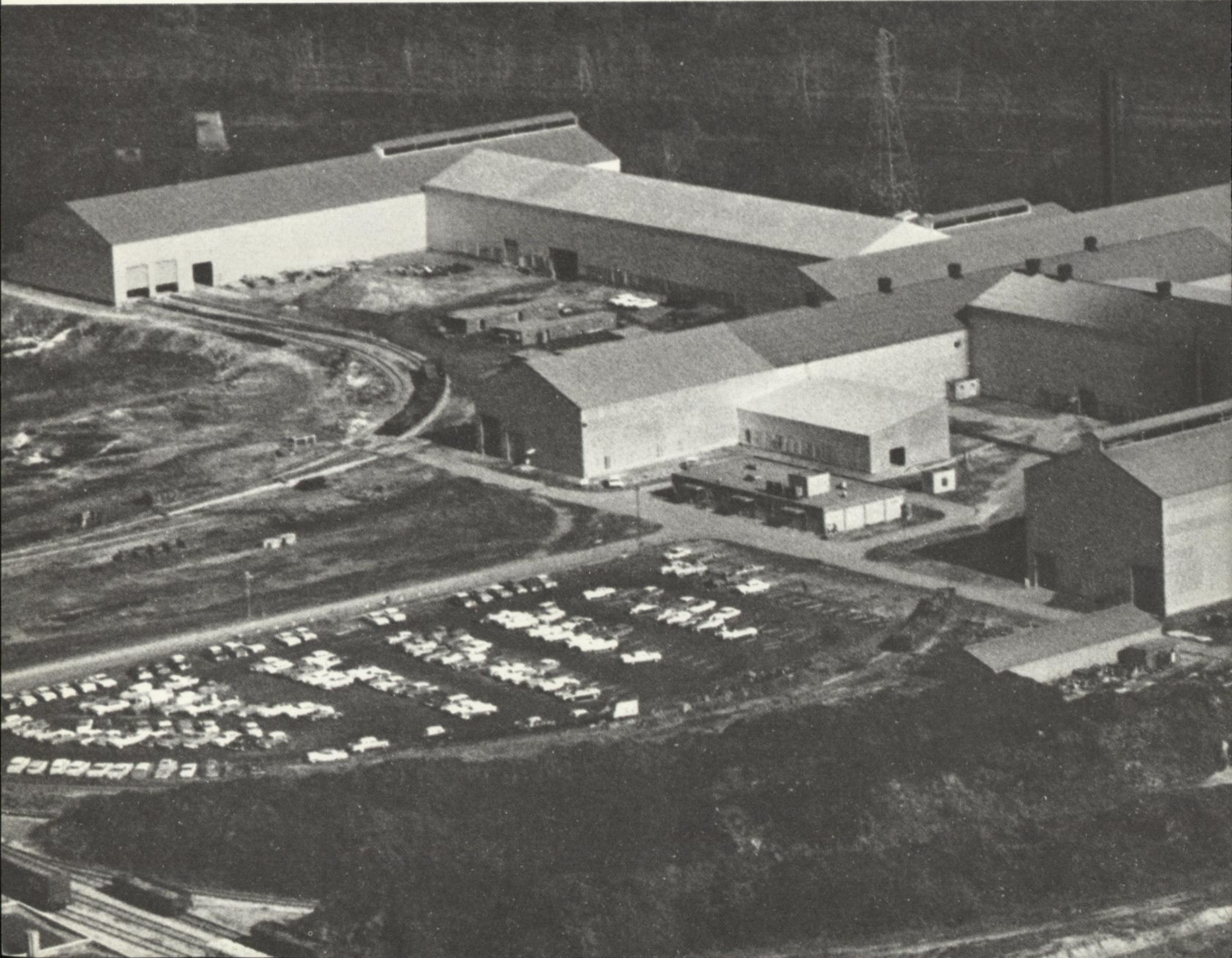
▶ B&W's advances in technology are benefiting the steel industry in its search for cost-cutting production methods. After many years of research and pilot plant development, B&W has built and placed in operation an experimental continuous casting unit for the Roanoke Electric Steel Corporation. It is the first commercial continuous casting plant in the United States. The process makes steel in five steps compared to ten for conventional methods and produces more bars per ton of steel because less steel is wasted.

Other significant advances helping steel companies are: a new water-cooled hood, which generates up to 150,000 pounds of steam per hour as it collects, cools and carries off high temperature gases produced in making steel with oxygen furnaces; and a blast furnace coal injection system, which reduces the cost of producing pig iron by substituting coal for 20 to 30 per cent of the more expensive coke normally used in blast furnace operation.

▼ Gas Chromatography is widely used in B&W's Research and Development activities. It is applied especially in research on equipment for processes where combustion and heat are utilized, such as boiler furnaces and chemical recovery units. These chemists are inspecting a chart from the gas chromatograph in the background. This analytical instrument, which requires only a small sample, permits rapid quantitative analyses of mixtures of gases and vapors.

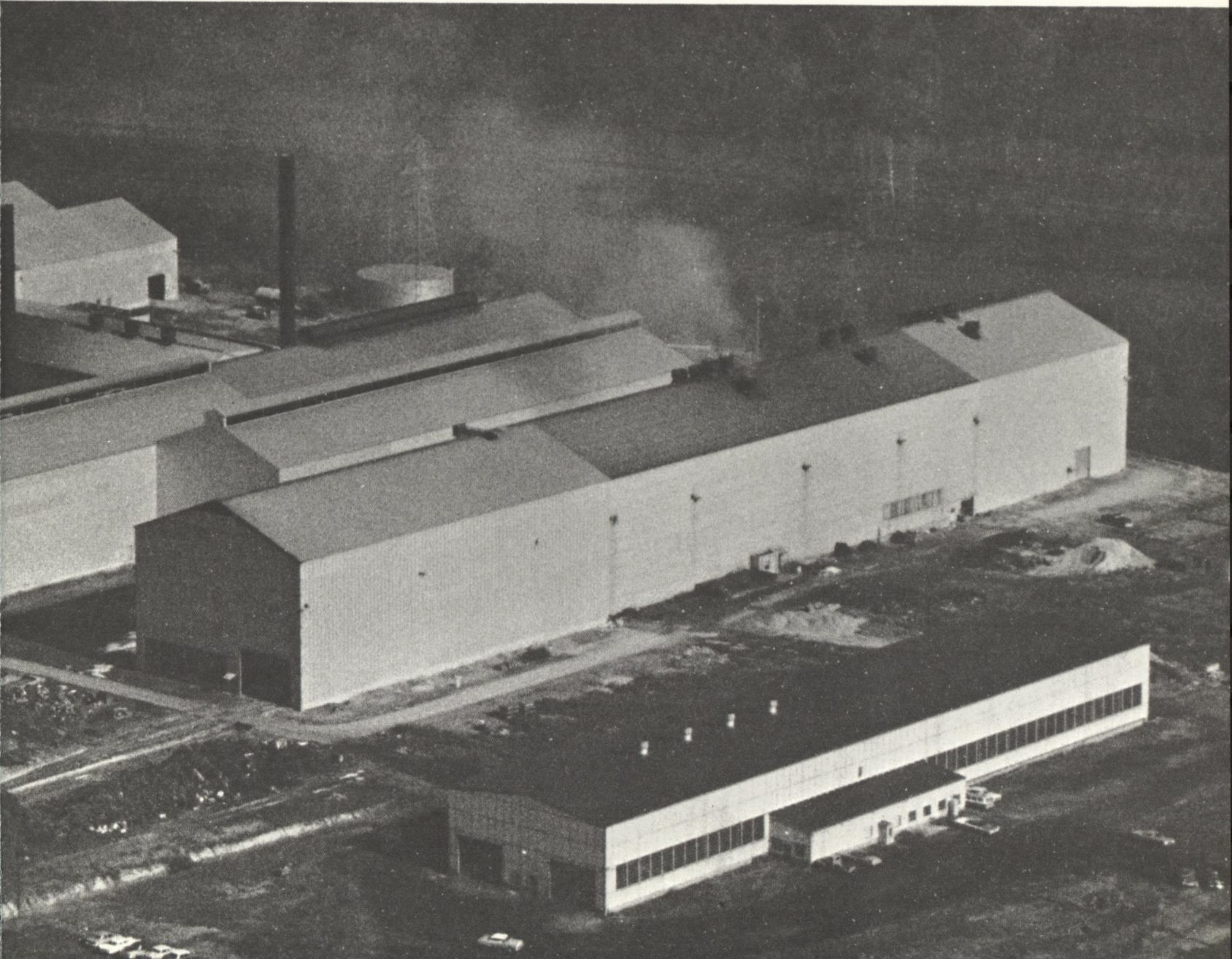
## B&W PROGRESS REPORT: 2. CAPITAL INVESTMENT

B&W spent $125-million on capital improvements in the past decade to integrate production, expand facilities and improve manufacturing efficiency. To meet increased demands for its products and to strengthen further its competitive position and earning power, the Company is continuing to accelerate capital expenditures and is in the midst of the largest program in its history. Major projects include a new Boiler Division plant at Mount Vernon, Ind.... a new fuel element test center and expansion of the Nuclear Fuel Element plant at Lynchburg, Va.... additional melting capacity and modern rolling mill facilities for the Tubular Products Division at Koppel, Pa.... expansion of facilities for the Research and Development Division at Alliance, Ohio... a Refractories Division headquarters office building and new manufacturing facilities for Kaowool and oxide refractories at Augusta, Ga.... new engineering and manufacturing facilities for Bailey Meter Company at Wickliffe, Ohio... modernization and expansion of Diamond Power's facilities in the United States and England... new assembly facilities for A.M. Lockett & Co., Limited, at New Orleans, La. Each operating division and subsidiary has a long range capital investment plan which is tied to its marketing operations. The planning and evaluating of capital projects is done on a uniform basis throughout the Company, facilitating selection of those which offer the best potential financial return for the Company as a whole.

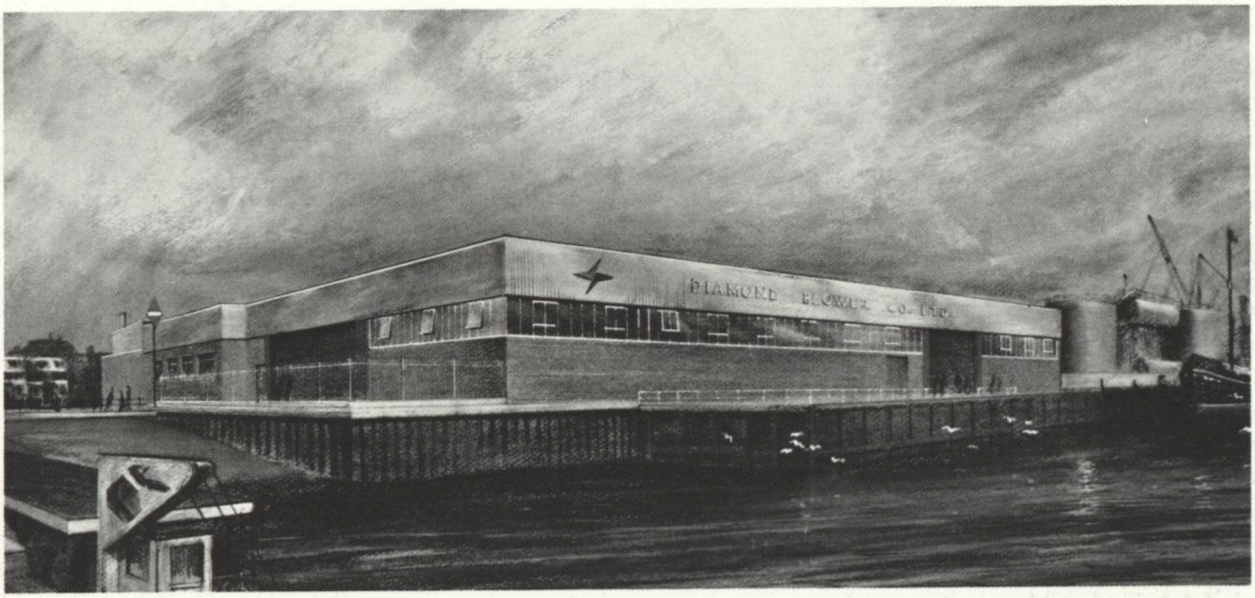


◀ Bailey Meter executives discuss the $4-million general office and engineering center (model shown) being erected by Bailey as an addition to its Wickliffe, Ohio, facilities. This construction was necessitated by Bailey's expanding activities in supplying systems engineering and automation equipment for power and process operations throughout the world.

▼ The $13-million addition to B&W's existing $15-million steel mill at Koppel, Pa., is scheduled to be operational in mid-1963. It will include another large electric arc furnace, a bar mill, a bloom shear, a rotary-hearth billet-heating furnace, and auxiliary equipment. Expansion of the original plant, built in 1959, will permit a more flexible steel production schedule.

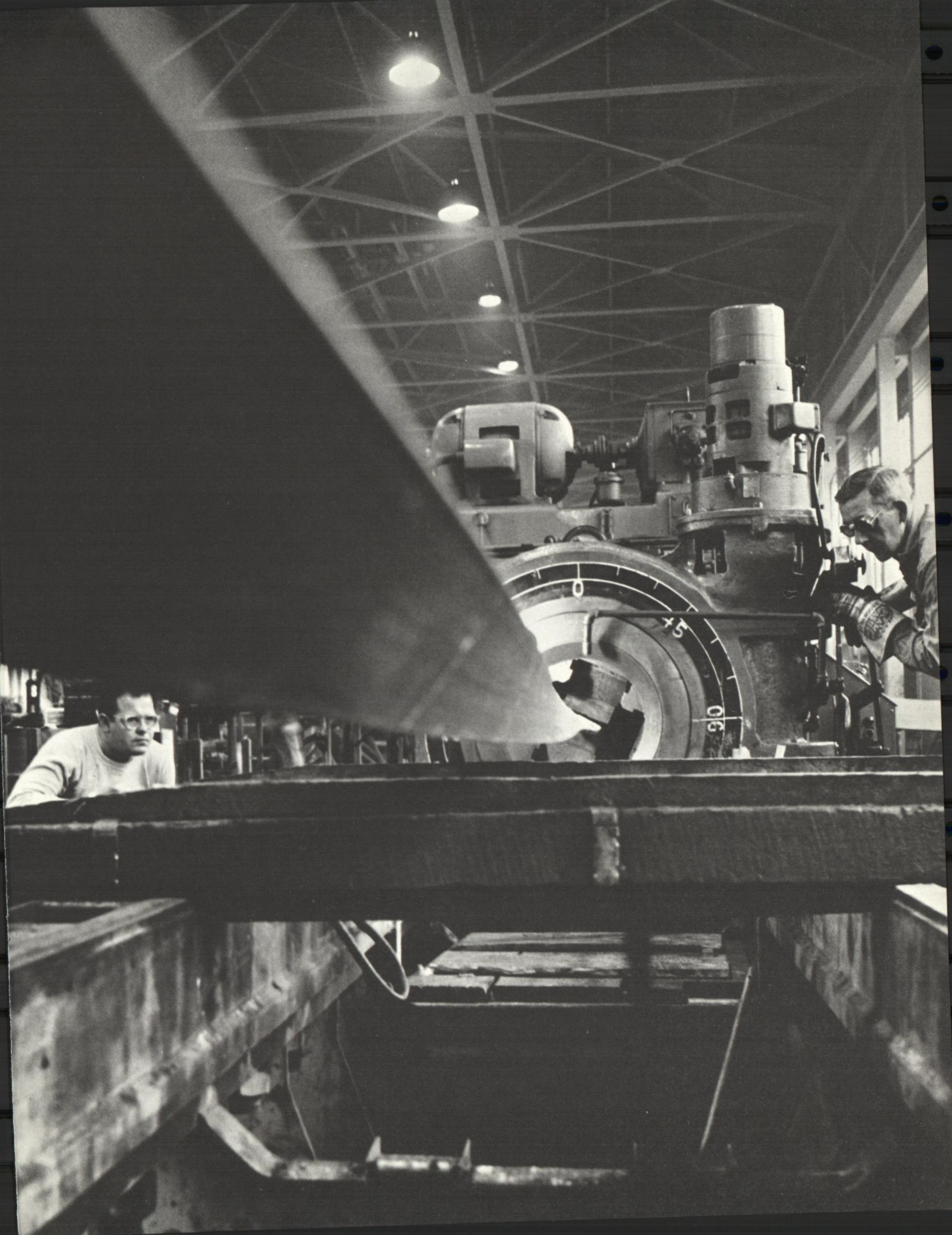


▼ Diamond Power equipment, because of its excellence and dependability, is being used in many parts of the world. At Diamond's new facilities in Southampton, England, a complete line of soot blowers, controls and water gauges is being manufactured for various overseas markets.


DIAMOND BLOWER CO. LTD.

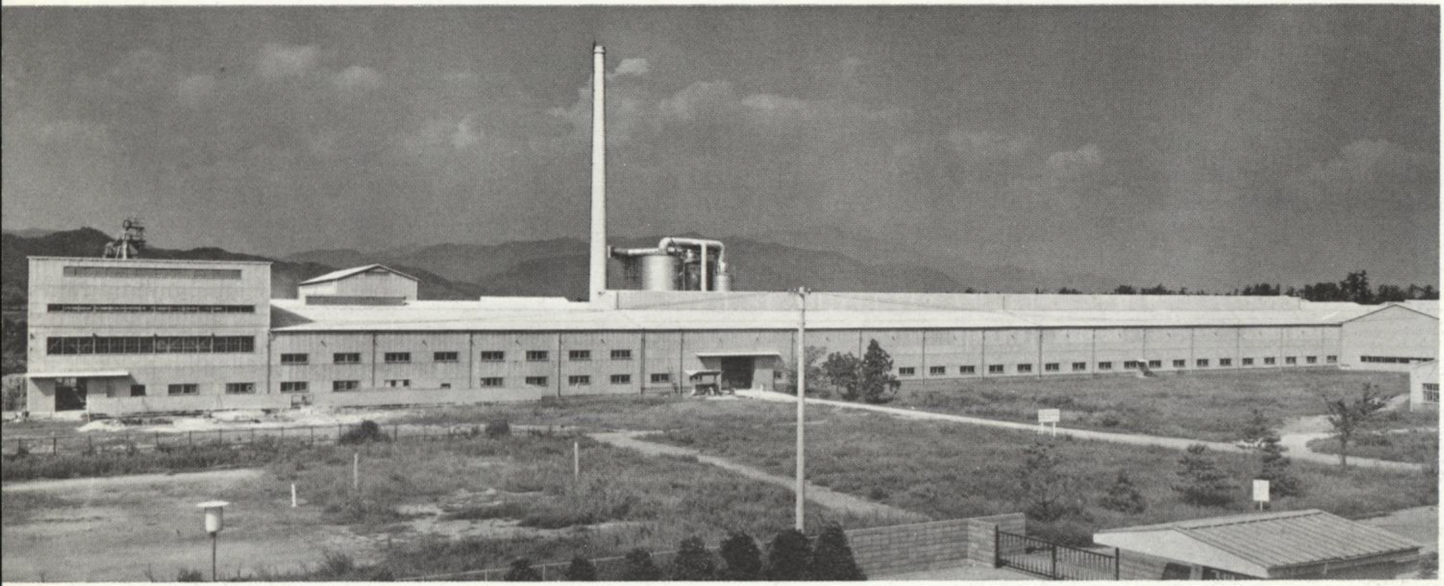
▲ At Mount Vernon, Ind., the Boiler Division's newest addition is expected to begin operating in 1963. The $3-million plant will handle larger shop-assembled components, such as the B&W-designed membrane-wall panel, required for modern boilers. Located on a 100-acre tract along the Ohio River, it is ideal for water shipments and truck and rail transportation.

The world's largest stretch straightening machine at the Tubular Products Division, Beaver Falls, Pa., is representative of B&W's large capital outlay for equipment. The machine can exert 300,000 pounds of pull to detwist and straighten simultaneously the more than 640 different special shapes produced by the Company's extruded steel shape process. ▶

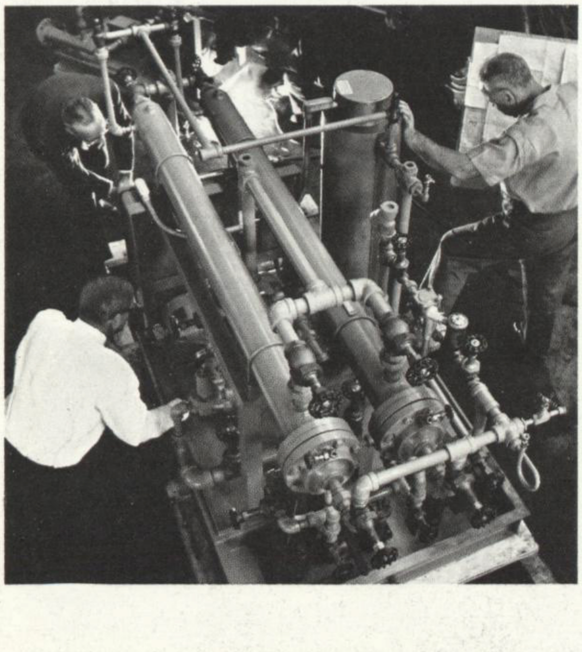

0
45
90

## B&W PROGRESS REPORT: 3. MARKET EXPANSION

Most industries use B&W products of various kinds, a result of long searching by B&W for new uses for existing products and its development of new products to meet industry's needs at home and abroad. The Tubular Products and Refractories Divisions have expanded their products and markets far outside the boiler field . . . Bailey Meter Company, supplier of steam plant controls and instrumentation, has branched into control and automation equipment for many industrial processes . . . Diamond Power's interest in remote reading indicators and automatic soot blowers has enabled it to develop and market numerous electronic products . . . the Boiler Division has become a major supplier of nuclear components, pressure vessels, chemical recovery systems and other industrial products . . . the Atomic Energy Division, drawing on the Company's over-all ability in many fields, designs and builds complete nuclear power systems. Long range profit potential is a key consideration in B&W's efforts toward market expansion. While the Company is concerned with increasing sales, it seeks to do so only to the extent that they carry a commensurate increase in profits.

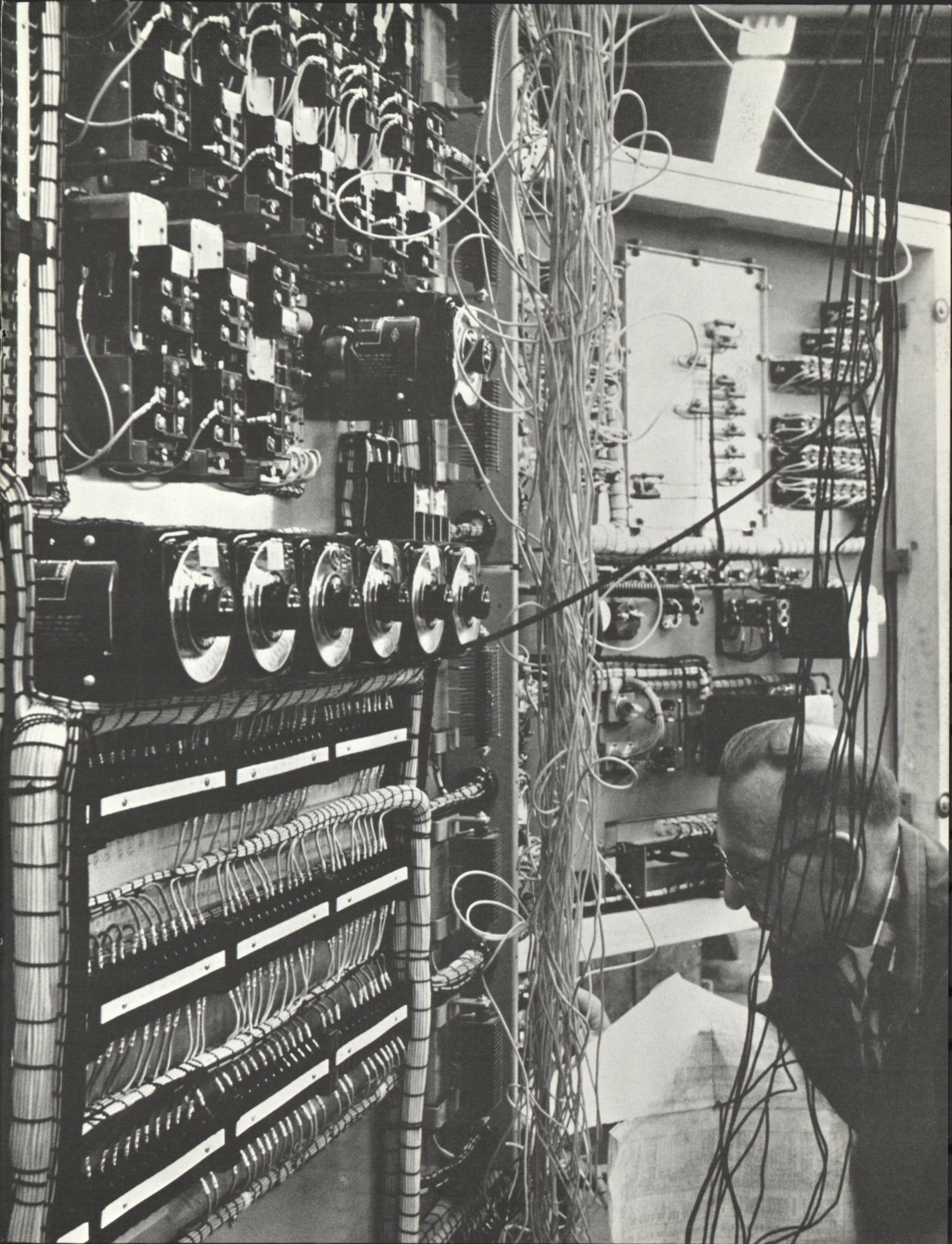


▲ B&W has licensed Isolite Insulating Products Company of Japan to manufacture and sell B&W-type refractories in Asia. B&W also provided technical and engineering know-how for design and erection of Isolite's new facilities at Toyokawa, Japan, where the refractories are being produced.



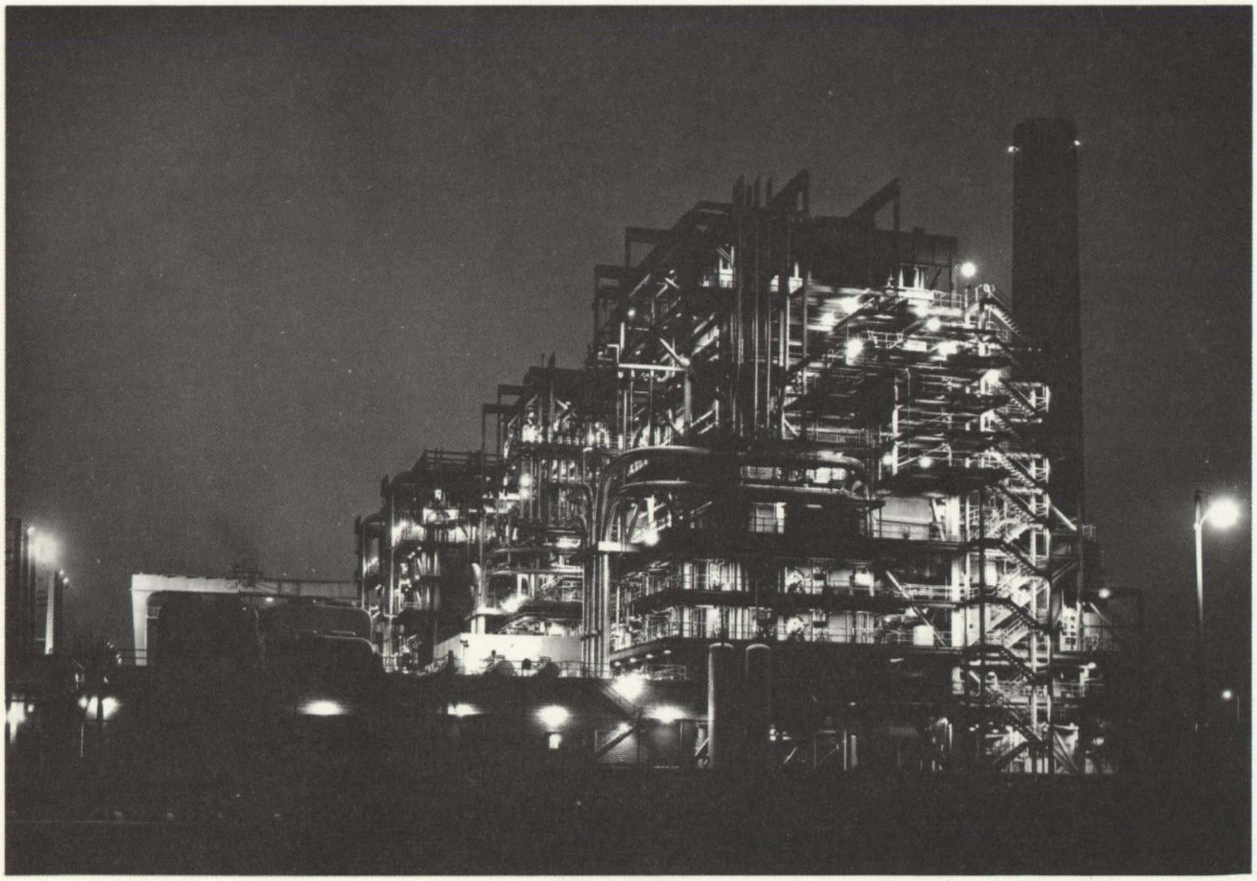
◄ A. M. Lockett & Co., Limited, has expanded its activities to include the engineering and assembling of machinery components into complete systems, such as the fuel oil pumping and heating set being readied for shipment at Lockett's plant in New Orleans, La.

Bailey and Diamond products continue to feature the latest in automation. A fully-automatic boiler cleaning system for large utility boilers, centralized in Diamond's Monitormatic Control Panel, can be integrated into a computer-operated boiler control system. ►



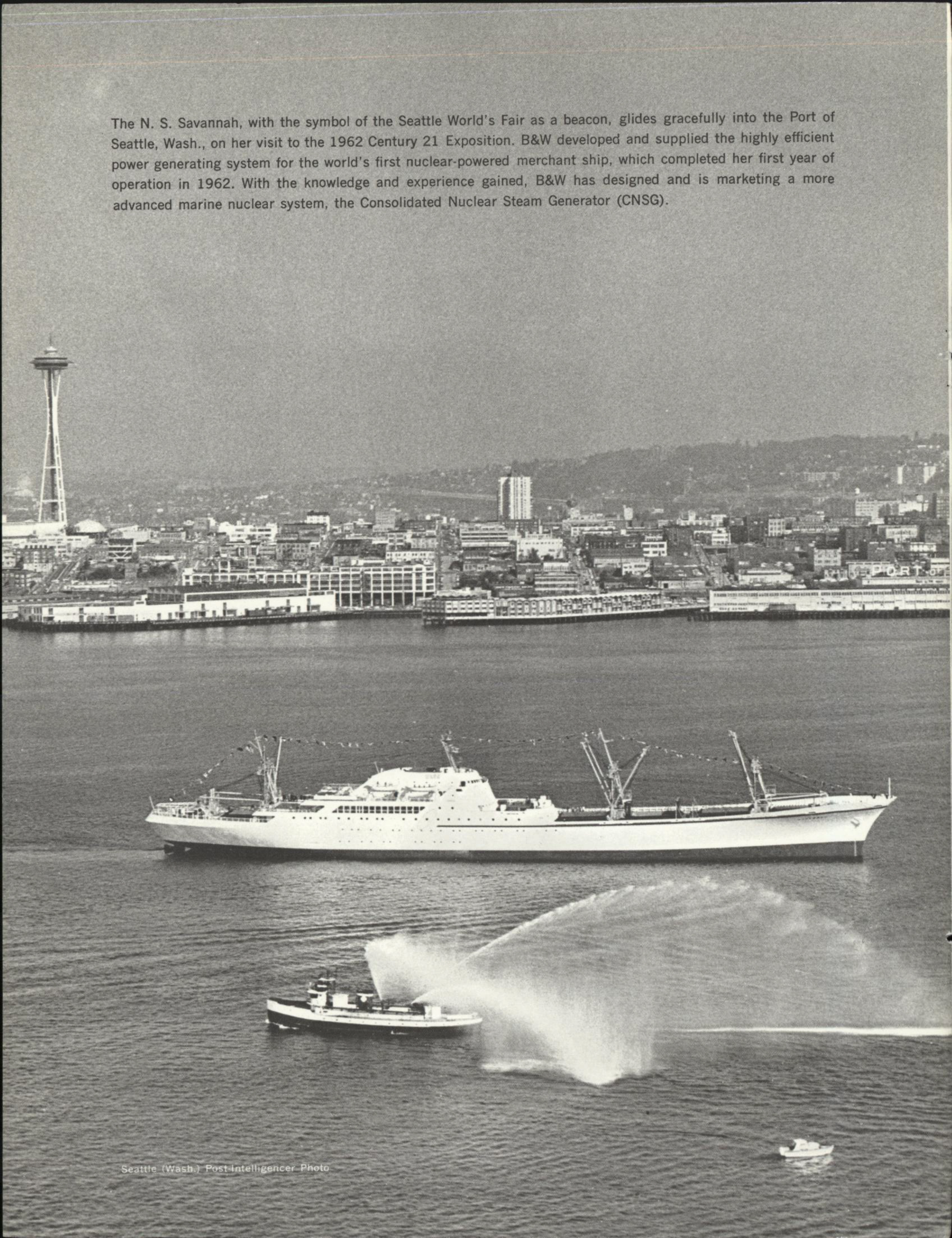
▶ B&W Universal Pressure boilers, having received excellent sales acceptance in the United States, are being marketed successfully in such countries as Italy and Japan. Executives of B&W and Edisonvolta, S.p.A. of Milan, discuss the recent purchase by this Italian utility of a UP unit which will be the largest boiler in Europe. This is also indicative of the increasing number of B&W boilers being built for export. In 1962, substantial sales of various other B&W designs were made for shipment to 19 countries.

▼ Southern California Edison's Huntington Beach Station, which is served by four B&W boilers, including two UP systems, is typical of domestic installations. Twenty-three UP units totaling 9,400,000 kilowatts had been installed or ordered by domestic and foreign utilities through 1962.



▲ Bailey Meter manufactures a complete line of pneumatic and electronic controls for power plants and steel, paper, chemical and other industrial processes. Bailey also designs and manufactures computing systems which gather and manipulate performance data to improve efficiency of plant operation.

Versatile B&W Kaowool, available in blanket, strip and bulk form, is an alumina-silica ceramic fiber that can be used at temperatures up to 2300 degrees Fahrenheit—and even higher on certain applications—with very little physical change. Kaowool blankets are unique in their ability to withstand repeated use in such service as insulation for preheating and stress relieving of large welded units. ▶



The N. S. Savannah, with the symbol of the Seattle World's Fair as a beacon, glides gracefully into the Port of Seattle, Wash., on her visit to the 1962 Century 21 Exposition. B&W developed and supplied the highly efficient power generating system for the world's first nuclear-powered merchant ship, which completed her first year of operation in 1962. With the knowledge and experience gained, B&W has designed and is marketing a more advanced marine nuclear system, the Consolidated Nuclear Steam Generator (CNSG).

Seattle (Wash.) Post-Intelligencer Photo

## THE BABCOCK & WILCOX COMPANY

General Offices, 161 East 42nd Street, New York 17, N. Y.
Sales Offices in principal cities

**Products**

**Steam Generating Equipment**

- For Power, Industrial Process and Heating, and for Marine Service
  - Water Tube Boilers
  - Water Cooled Furnaces
  - Superheaters and Reheaters
  - Economizers and Airheaters
  - Pulverized Coal Systems
  - Cyclone Furnaces, Stokers
  - Oil, Gas and Multi-Fuel Burners
- Hollow Forgings for steam piping and other applications
- Metering and Control Apparatus
- Power Plant Information Systems and Performance Computers
- Cleaning Systems for heat transfer surfaces
- Water Gauges

**Tubular Products**

- Stainless, Alloy, or Carbon Steel
  - Tubes and Pipe for all types of Pressure and Mechanical Applications
  - Extrusions—Tubular and Solid Shapes
  - Welding Fittings and Flanges
  - Seamless Rolled Rings

**Atomic Energy**

- Complete Nuclear Power Systems and Components
  - Reactors, Cores and Vessels
  - Fuel Elements
  - Heat Exchangers
  - Controls and Instrumentation
  - Control Rod Drives
  - Reactor Mechanisms
  - Liquid Level Gauges
- Test Reactors
- Critical Experiments
- Research and Economic Studies

**Refractories**

- For Furnaces and Heat Treating Processes
  - Insulating Firebrick
  - Special Firebrick
  - Silicon Carbide
  - Plastics, Mortars, Castables, Ramming Mixes, Calcines
  - Ceramic Fiber

**Special Equipment**

- Alloy Castings
- Pressure Vessels
- Heat Exchangers
- Systems for Process Automation
- Recovery Processes for the Pulp Industry
- Pulverizers for Cement Materials, Rock Products and Ores
- Industrial (Closed Circuit) Television
- Stud Tensioners

**Facilities**

**Atomic Energy Division**

Lynchburg, Va.

**Boiler Division**

Alliance, Ohio
Barberton, Ohio
Brunswick, Ga.
Lynchburg, Va.
Mount Vernon, Ind.
Paris, Tex.
West Point, Miss.
Wilmington, N.C.

**Engineering Branch Offices**

Cleveland, Ohio
St. Petersburg, Fla.
Scranton, Pa.

**Refractories Division**

Augusta, Ga.

**Research and Development Division**

Alliance, Ohio
Lynchburg, Va.

**Tubular Products Division**

Alliance, Ohio
Beaver Falls, Pa.
Milwaukee, Wis.

**Bailey Meter Company**

Cleveland, Ohio
Wickliffe, Ohio
Montreal, Que., Canada

**Diamond Power Specialty Corporation**

Lancaster, Ohio
Southampton, England

**A. M. Lockett & Co., Limited**

New Orleans, La.

# 1962

Annual
Report